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REMARKS**ON THE CLAIMS**

Claims were previously amended in two submittals dated July 5, 2005 and September 8, 2005. These amendments, their associated REMARKS, and previously submitted Terminal Disclaimers to Lang's US Patent 6,522,994 and to Lang's US Patent 6,651,035 addressed all issues raised by the PTO.

No claim has been deleted nor added in this submittal. Only non-substantive changes to three claims (claims 17, 47 and 74) were made, with resultant and required phraseology changes to claims 48, 49, 61 and 73.

In summary, claims 1-76 are pending. In the Notice of Allowance, mailed from the PTO on October 26, 2005, claims 1-61 and 64-76 were allowed. Claims 62-63 were cancelled in a previous submittal. Claims 17, 47-49, 61, 73 and 74 are modified herein to better describe the invention.. The following table explains the claim history of Application 10/715,319 as to amendments submitted:

Claim	First Claim Amend.	Second Claim Amend.	Third Claim Amend.	Claim	First Claim Amend.	Second Claim Amend.	Third Claim Amend.
1	yes	no	no	48-49	no	yes	yes
2	yes	no	no	50-60	no	no	no
3	yes	no	no	61	no	yes	yes
4	no	no	no	62	no	cancelled	--
5	yes	no	no	63	no	cancelled	--
6-16	no	no	no	64-68	no	no	no
17	yes	yes	yes	69-71	new	yes	no
18-25	no	no	no	72	new	no	no
26	yes	no	no	73	new	yes	yes
27-46	no	no	no	74	--	new	yes
47	yes	yes	yes	75-76	--	new	no

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Claim 17

The amendment to Claim 17 changes only the introductory word of the first clause from "selecting" to "using". The word "using" is applied herein in the usual sense, meaning to avail oneself, to consume, and/or to take-in.

Claim 47

The amendment to Claim 47 reflects the elimination of the un-needed phrase related to "before on-line operation" and "on-line operation". Indeed the invention is not limited to either off-line or on-line operations. Note that from specification paragraph 0005: "The teachings of this invention may be implemented for monitoring of any thermal system burning a fossil-fuel ..."; and, from paragraph 0038: "As used herein, the words "monitoring" or "monitored" are meant to encompass both on-line monitoring (i.e., processing system data in real time) and off-line monitoring (i.e., computations involving static data)." The words "using" and "computing" are now employed to introduce the first and last clauses of Claim 47. The word "using" is applied herein in the usual sense, meaning to avail oneself, to consume, and/or to take-in. The word "computing" is applied herein in the obvious sense, meaning the using of a computer. Refer to paragraphs 0016 and 0024, and FIG.2 and FIG.3 for both direct references, and obvious equivalences, to typical computer operations associated with this invention.

Claims 48-49

The amendments made to Claims 48-49 simply reflect changes made to their originating independent Claim 47.

Claim 61

The word "computing" is now employed to introduce the first clause of Claim 61. The word "computing" is applied herein in the obvious sense, meaning the using of a computer. Refer to paragraphs 0016 and 0024, and FIG.2 and FIG.3 for both direct references, and obvious equivalences, to typical computer operations of this invention.

Claim 73

The amendment made to Claim 73 is a grammatical correction, adding the word "and" before the last clause.

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Claim 74

The amendment made to Claim 74 more directly applies the teachings of the invention. Determining a consistent set of effluents is well taught in paragraph 0047 in which it is explained how effluent concentrations can be converted to form a consistent set of effluents: at the air pre-heater's inlet (also termed the Economizer exit), or at the air pre-heater's outlet or Stack.

For example, it may be convenient that a consistent set of effluents be established at the Economizer exit where O_2 and, say, CO are measured (i.e., available plant effluents), but where CO_2 and SO_2 are measured at the Stack. Thus one must convert CO_2 and SO_2 values in the Stack to those at the Economizer exit. The "Air Pre-Heater Leakage Factor", R_{Act} , allows for such conversion as taught in paragraph 0047. R_{Act} allows for the determination and use of a consistent set of effluents.

As stated in paragraph 0047, beneath Eq.(25): "What is important to this invention, important to The Input/Loss Method, and important to any of the Input/Loss methods, is that the Air Pre-Heater Leakage Factor (R_{Act}) allows gaseous measurements to be employed on either side of the system air in-leakage."

Using a set of stoichiometric balances leading to the computation of fuel chemistry, is taught throughout the specification and specifically in the section entitled "Systems Stoichiometrics" (paragraphs 0044 through 0062). Of course the term "fuel chemistry" may be taken in the usual context as the make-up of the fossil fuel (the analysis of the fossil fuel); e.g., a coal analysis, a peat analysis, a lignite analysis, etc. Further, this application is a Continuation-In-Part to U.S. Patent Application Serial Number 09/273,711 filed March 22, 1999, which issued on February 18, 2003 as U.S. Patent 6,522,994. Patent 6,522,994 teaches: "The present invention uses a modeling analysis to quantify the As-Fired fuel chemistry of the fuel feed ... and other parameters in a self-consistent manner, which allows the entire power plant thermal system ... to be quantitatively understood" (see Col.15, Lines 11-15). Patent 6,522,994 also teaches stoichiometric balances in light of determining fuel chemistry based on plant effluents in its section entitled "Combustion Equation and Fuel Chemistry" (see Col.21, Line 47 through Col.30, Line 31, and Certificates of Corrections). Of course fuel chemistry is obviously useful, especially for any thermal system in which its fuel analysis is intrinsically unknown, as is the case for a system burning coal, black liquor, refuse, lignite, bio-mass or peat.

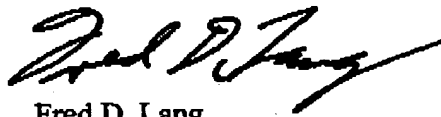
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This document is respectfully submitted by the *pro se* Applicant, Fred D. Lang, and the Assignee, Exergetic Systems, LLC as represented by the *pro se* Applicant, Fred D. Lang, he being the President of Exergetic Systems, LLC. Thank you for considering this submittal.

Sincerely,



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